

UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

**IN RE: JOHNSON & JOHNSON
TALCUM POWDER PRODUCTS
MARKETING, SALES
PRACTICES, AND PRODUCTS
LIABILITY LITIGATION**

MDL No. 16-2738 (MAS) (RLS)

***THIS DOCUMENT RELATES TO
ALL CASES***

**THE PLAINTIFF STEERING COMMITTEE'S MEMORANDUM OF LAW
IN SUPPORT OF ITS MOTION TO EXCLUDE THE OPINIONS OF
DEFENSE EXPERT WITNESS DR. JEFF BOYD**

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The PSC respectfully submits this memorandum of law in support of its motion to exclude portions of the testimony of the Johnson & Johnson Defendants¹ (“J&J”) expert witness, Dr. Jeff Boyd, pursuant to Federal Rule of Evidence 104 (a), 702, 703 and 403.

I. INTRODUCTION AND SUMMARY

The opinions of Dr. Jeff Boyd, a researcher focused on genetics and molecular genetics of gynecologic and breast cancers mutations, primarily criticize the published, peer-reviewed work of Dr. Ghassan Saed, whose research investigates the role of oxidative stress in the pathogenesis of ovarian cancer. Dr. Boyd also attacks the published, peer-reviewed studies of Drs. Mandarino and Emi, both of which relate in vitro studies exploring the effects of talc on ovarian cancer. Dr. Boyd’s opinions are based on speculation and his subjective beliefs, not actual research or data, and are devoid of any procedures or methodologies that can be tested or replicated.²

¹ The Johnson & Johnson Defendants include Johnson & Johnson, Johnson & Johnson Consumer Inc., n/k/a Johnson & Johnson Consumer Companies, Inc., LTL Management LLC, Johnson & Johnson Holdco (NA), Inc., Kenvue Inc., and Janssen Pharmaceuticals, Inc.

² *Calhoun v. Yamaha Motor Corp.*, U.S.A., 350 F.3d 316, 321 (3d Cir. 2003) (“...the testimony must be reliable...‘the expert’s opinion must be based on the methods and procedures of science rather than on subjective belief or unsupported speculation...’”) (citations omitted). *See also Schneider ex rel. Estate of Schneider v. Fried*, 320 F.3d 396, 405 (3d Cir. 2003).

There are several bases upon which Dr. Boyd's opinions should be excluded.

First, Dr. Boyd's opinions are not based upon methods or procedures of science. Dr. Boyd concedes that he has not: (1) conducted any research related to talc; (2) done any research on talcum powder and chronic inflammation; or (3) tried to reproduce any of the work he criticizes. He is unable to identify specific research he did in support of his opinions other than to confirm that he reviewed the work of Dr. Saed, the expert report of Dr. Shawn Levy, and the articles published by Mandarino and Emi.

Second, Dr. Boyd cherry-picks that which he chooses to rely upon, arbitrarily glossing over or failing to at all consider publications and findings that do not support his opinions.

Third, Dr. Boyd does not have any expertise in the area of *in vitro* studies. He has spent a large part of his career in the clinical setting and has not been work in a lab in nearly 20-years. As it relates to his critiques of the published, peer-reviewed work of Drs. Saed, Mandarino, and Emi, Dr. Boyd acknowledges that the work was reviewed by experts in the field before publication, and his opinions are simply at odds with other experts.

Finally, Dr. Boyd's opinions would confuse the jury. Dr. Boyd does nothing more than offer opinions on published research that was peer-reviewed by experts in the field prior to publication. The purpose of expert testimony is to help the jury

understand the evidence or determine a fact at issue. Permitting Dr. Boyd to opine on individual, peer-reviewed studies would confuse or mislead the jury by creating the perception that Dr. Boyd's opinions carry more weight than other experts in the field.

II. LEGAL STANDARD

The PSC incorporates as if set forth in entirety the legal standards set forth in The Plaintiffs' Steering Committee's Brief Regarding the Rule 702 Standard ("Rule 702 Standard Brief") as supplemented herein.

III. OVERVIEW OF DR BOYD'S OPINIONS

Dr. Boyd opines on several different topics, including: (1) two posters authored by Dr. Ghassan Saed and the 2023 published study associated with Dr. Saed's work; (2) two studies involving murine macrophages and talcum powder led respectively by Dr. Angelo Mandarino in 2020 and Dr. Tania Emi in 2021; and the opinions of plaintiffs' expert, Dr. Shawn Levy, which address, in part, genetics and ovarian cancer.³ As set forth below, each of these opinions is unsupported and should not be allowed.

³ Supplemental Expert Report of Jeff Boyd, PhD (May 24, 2024) ("Boyd Report"), attached as Exhibit 1, at 2; Deposition of Jeff Boyd, Ph.D. (July 19, 2024) ("Boyd 2024 Dep."), attached as Exhibit 2 at 62:8-12 ("Q. And does the scope of the opinions that you're going to provide related to the supplemental report go beyond what you've stated here on page 2? A. No.").

IV. DR. BOYD'S SUBJECTIVE, UNSUPPORTED OPINIONS ON PUBLISHED, PEER-REVIEWED STUDIES SHOULD BE EXCLUDED

The majority of the Boyd Report criticizes peer-reviewed, published research done by Drs. Saed (pgs. 2-16), Mandarino (pgs. 17-18), and Emi (pgs. 18-20). However, Dr. Boyd's opinions are not tethered to any reliable principles or methods and must be excluded. Although Dr. Boyd confirmed that he reviewed data and materials submitted by Dr. Saed related to published manuscripts, and that he also reviewed the papers by Drs. Mandarino and Emi, Dr. Boyd also confirmed that he did little more than that. Dr. Boyd was unable to point to any research he conducted in support of his opinions:

- Q. As it relates to the SGO 2020 and SRI 2021 poster presentations, did you do any type of document searches as it relates to those two posters? A. I don't remember. Boyd 2024 Dep. at 18:12-17.
- Q. Do you remember at any time doing any type of PubMed search or any other type of search in support of your opinions related to the Saed poster – meaning the Saed 2020 SGO poster? A. I don't remember one way or the other. Boyd 2024 Dep. at 18:19-19:1.
- Q. Okay. Did you review any documents related to the 2020 SGO poster? A. Documents other than the poster material itself? Q. Yeah, documents other than the poster itself. A. I don't recall. Boyd 2024 Dep. at 19:9-18.
- Do you have any recollection of doing any type of [PubMed] or other search related to the Saed SRI 2021 poster? A. I don't remember one way or the other. Boyd 2024 Dep. at 19:2-7.

- Q. Do you recall doing any type of PubMed searches in and around your review of the Harper Minerva Obstetrics and Gynecology article? A. Not specifically, no. Boyd 2024 Dep. at 25:16-20.
- Q. Well, my question was specific to Dr. Saed and whether you have a recollection of doing a search specific to Dr. Saed in your opinion on Dr. Saed? A. No specific recollection on that. Boyd 2024 Dep. at 23:21-25.
- Q. And when you say that after you carefully reviewed it, you researched it, can you tell me what you did for purposes of researching it? A. Not specifically. Whenever issues come up that I'm interested in pursuing further or may have questions about, I'll always go to the Internet and look at material that may be relevant or may not be. Q. And do you have a recollection of any specific searches that you did on the Internet as it relates to your preparation of this report? A. No. Boyd 2024 Dep. at 58:4-14.
- Q. Other than the documents that you just went through that you reviewed in preparation of this report, did you review any other documents? A. Probably. Q. Do you have a recollection of any other documents you reviewed? A. Not specifically. Boyd 2024 Dep. at 58:15-23.
- Q. Other than – other than the journal articles that you just testified that you had reviewed, do you have a specific recollection of reviewing any other journal articles in preparation of this report. A. Not specifically. Boyd 2024 Dep. at 59:5-12.

As it relates to specific criticisms, Dr. Boyd did nothing to research and support his opinions. For example, Dr. Boyd was critical of the dose of talcum powder that Dr. Saed used during his experiments (Boyd Report at 6; Boyd 2024

Dep. at 87:23-88:9), but his opinion on dose is unsupported by any research or methodology:

- Q. When you formulated your opinion that Dr. Saed used an improper dose of talcum powder for purposes of the work that he did, upon what did you base that determination? A. My understanding of his scientific methodology... Boyd 2024 Dep. at 93:1-6.
- Q. Other than your review of the Saed notebooks and the dosing that he used for his 2019 work and your opinion that it's an extremely high dose, did you rely upon anything else for a determination that it was an improper dose? A. In terms of my own personal opinion, no. Boyd 2024 Dep. at 94:2-7.
- Q. If there were studies that used dosing of talc that's similar to what Dr. Saed used in his 2019 study, would that be relevant to the formation of your opinions? A. No. My opinion is that the dose is extraordinarily high and would remain so. Boyd 2024 Dep. at 96:3-11.
- Q. Have you ever made a determination as to what an appropriate and/or inappropriate level of talc is for purposes of in vitro studies? A... But no, I have never personally performed a study with talcum powder in that context. Boyd 2024 Dep. at 97:5-22.

Dr. Boyd's opinions related to the dosing used by Dr. Saed run in contrast to the opinions of Defendants' other experts and to the previous holdings of Chief Judge Wolfson. Dr. Boyd states that his opinions related to dosing used by Dr. Saed are based on the dosing Dr. Saed used for his 2019 work. Boyd 2024 Dep. at 94:2-7. However, Defendants' toxicology expert, Dr. Brooke Mossman, testified that the doses used by Dr. Saed were "appropriate concentration levels to determine

pathogenicity of asbestos and talc.”⁴ Dr. Boyd also ignores that similar dosing was used in other peer-reviewed, published studies.⁵ Tellingly, Dr. Boyd had not considered either the Buz’Zard or Shukla studies when forming his original 2019 opinions and has at no time considered Akhtar, which also used similar talc dosing.⁶

Although Dr. Boyd criticized the cell transformation assay kit used by Dr. Saed (Boyd Report at 7), Dr. Boyd has never used a commercial assay kit (Boyd 2024 Dep. at 111:15-112:5), his only familiarity with the kit used by Dr. Saed comes from his reading the product brochure (Boyd 2024 Dep. at 111:12-14), and he is unaware of whether the commercial assay kit is typically used in the scientific community ((Boyd 2024 Dep. at 112:23-113:3 (stating “I can’t say what’s used typically in the scientific community.)). In fact, Dr. Boyd couldn’t answer specific

⁴ See April 8, 2019, deposition of Brooke T. Mossman (“Mossman Dep.”), excerpts of which are attached hereto as Exhibit 3, at pgs. 355-358. See also *In re: Johnson & Johnson Talcum Powder Prods. Liab. Litig.*, 509 F. Supp.3d 116, 142-143 (D.N.J. 2020) (finding unpersuasive Defendants’ argument that dosing used by Dr. Saed was not a relevant dose).

⁵ See Shukla, et al., *Alterations in Gene Expression in Human Mesothelial Cells Correlate with Mineral Pathogenicity*, 41 Am. J. Respir. Cell Mol. Biol. 114-123 (2009); Buz’Zard, et al., *Pycnogenol reduces Talc-induced Neoplastic Transformation in Human Ovarian Cell Cultures*, 21 Phytother. Res. 579-586 (2007).

⁶ See Akhtar, et al., *The primary role of iron-mediated lipid peroxidation in the differential cytotoxicity cause by two varieties of talc nanoparticles on A549 cells and lipid peroxidation inhibitory effect exerted by ascorbic acid*, 24 Toxicology, 1139-1147 (2010); Akhtar, et al., *Cytotoxicity and Apoptosis Induction by Nanoscale Talc Particles from Two Different Geographical Regions in Human Lung Epithelial Cells*, Environ. Tech. (2012).

questions about the cell transformation assay kit because he doesn't understand the use of the term "cell transformation" as it relates to the kit:

- Q. Do you agree with the statement: "Anchorage-independent cell growth is the hallmark of cell transformation? THE WITNESS: That's a very complicated question. There is no single hallmark to malignant transformation. And as I've stated, I'm not totally clear on what the investigators mean by "cell transformation" outside the context of malignant transformation." Boyd 2024 Dep. at 115:19-116:4.
- Q. If Dr. Saed had used the term "cell transformation" as compared to "malignant transformation," in your opinion, would have fit within the indication of the Abcam commercial assay kit, correct? THE WITNESS: To the extent that one understands what "transformation" means outside the context of malignant transformation. And I don't. Boyd 2024 Dep. at 120:2-11.
- Q. Well, is transformation of a cell a prerequisite for a cell to become malignant? THE WITNESS: Again, I'm unfamiliar with the term "cell transformation" outside the context of malignant cell transformation. Boyd 2024 Dep. at 122:25-123:5.

Dr. Boyd can't testify that he doesn't understand how "cell transformation" is used in the commercial assay kit product brochure, on the one hand, and simultaneously testify that Dr. Saed failed to use the kit as required by the product brochure.

Dr. Boyd criticizes the use of ovarian surface epithelial ovarian cells rather than fallopian tube cells (Boyd Report at 6), but does so even though: (1) he has never done any testing using fallopian tube cells in the lab (Boyd Dep. at 134:4-10);

(2) he does not have an active research lab; (Boyd Dep. at 134:10-12); (3) he is unable to cite to any studies where fallopian tube cells are used (Boyd Dep. at 136:22-25); and (4) he did not consider any information involving in vitro testing of fallopian tube cells (Boyd Dep. at 137:4-13).

Similarly, although Dr. Boyd is critical of the opinions of Plaintiffs' expert, Dr. Shawn Levy (Boyd Report at 22-26), Dr. Boyd did not do the work necessary to support his opinions. Dr. Boyd opines that Dr. Levy has flawed opinions related to talc, inflammation, and ovarian cancer but fail to consider myriad peer-reviewed, published studies that were otherwise considered by Dr. Levy in forming his opinions. For example, Dr. Levy considered and cites to the following studies that were not at all considered by Dr. Boyd: Savant, et al., *The Role of Inflammation and Inflammatory Mediators in the Development, Progression, Metastasis, and Chemoresistance of Epithelial Ovarian Cancer*, Cancer 10, No. 251 (2018); Trabert, et al., *Aspirin, non aspirin nonsteroidal anti-inflammatory drug, and acetaminophen use and risk of invasive epithelial ovarian cancer: a pooled analysis in the Ovarian Cancer Association Consortium*, J Natl Cancer Inst. 106(2): djt431 (2014); Shan, W. and J. Liu, *Inflammation: a hidden path to breaking the spell of ovarian cancer*, Cell Cycle 8(19): 3107-3111 (2009); Ness, et al., *Factors related to inflammation of the ovarian epithelium and risk of ovarian cancer*, Epidemiology 11(2): 111-117

(2000); Hurwitz, et al., *Association of Frequent Aspirin Use With Ovarian Cancer Risk According to Genetic Susceptibility*, JAMA Netw Open 6(2): e230666 (2023).

Expert opinions must be based on facts and not “speculation or conjecture.”

Fedorczyk v. Caribbean Cruise Lines, 82 F.3d 69, 75 (3d Cir. 1996). “*Daubert* holds that an inquiry into the reliability of scientific evidence under Rule 702 requires a determination as to its scientific validity.” *In re: Paoli R.R. Yard Pcb Litig.*, 35 F.3d 717, 742 (3d Cir. 1994); *see also In re: J&J Talcum Powder Prods. Mktg., Sales Practices & Profs. Litig.*, 509 F. Supp. 3d 116, 131 (D.N.J. 2020). Thus, an expert opinion must be excluded if it is not based on existing scientific data. *Hoefling v. U.S. Smokeless Tobacco Co., LLC*, 576 F. Supp. 3d 262, 275 (E.D. Pa. 2021).⁷ That this area of science is evolving does not make Dr. Boyd’s opinions admissible. Even in matters of “evolving” science, the court must exclude expert opinions that are “too speculative.” *Henricksen v. Conoco Phillips Co.*, 605 F. Supp. 2d 1142, 1169 (E.D. Wash. 2009).

Accordingly, the Court should exclude the speculative opinions of Dr. Boyd that are based only on his subjective beliefs and unsupported speculation, including his opinions on the peer-reviewed, published work of Drs. Saed, Mandarino, and Emi, and the opinions of Dr. Levy.

⁷ *Gen. Elec., Co. v. Joiner*, 522 U.S. 136, 146 (1997) (“[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.”).

V. DR. BOYD'S OPINIONS ARE BASED ON FLAWED METHODOLOGIES

A. Dr. Boyd Fails To Consider Known Constituents Of Talcum Powder When Opining On Biologic Plausibility

Plaintiffs contend that J&J's talcum powder contains asbestos and other carcinogenic constituents. In fact, in October 2019, the FDA found asbestos in a sample of J&J's Baby Powder, resulting in J&J recalling 33,000 bottles of the product.⁸ Plaintiffs' experts also testify to the presence of asbestos in Baby Powder and its relationship to ovarian cancer.⁹ Dr. Boyd ignores asbestos when opining on biological plausibility, focusing only on mechanistic studies concerning talc and failing to consider the studies that demonstrate that talc with asbestos is known to be genotoxic.¹⁰

As the Court previously recognized, biological plausibility asks ““whether the hypothesized causal link is credible in light of what is known from science and medicine about the human body and the potentially offending agent.”” *In re: Johnson & Johnson Talcum Powder Prods. Mktg., Sales Practices & Prods. Litig.*, 509 F. Supp. 3d 116, 174 (D.N.J. 2020) (quoting *Milward v. Acuity Specialty Prods.*

⁸ Dyer, Owen. Johnson & Johnson Recalls its Baby Powder after FDA Finds Asbestos in Sample. *BMJ* (2019).

⁹ See Longo & Rigler 2nd Supp. Report (February 1, 2019); Longo 4th Supp. Report (November 17, 2023); *see also* Wolf 2024 Report at 12.

¹⁰ See International Agency for Research on Cancer (IARC), Volume 100C, *Arsenic, Metals, Fibres and Dusts*, at 288-291 (2012).

Grp., Inc., 639 F.3d 11, 25 (1st Cir. 2011)). Dr. Boyd ignores the “offending agent,” which is talcum powder – a substance consisting of talc (both platy and fibrous), asbestos, and other constituents. He opines that cosmetic talc, regardless of its exact constituents, does not cause or contribute to the development of ovarian cancer, and that there is no evidence talcum powder causes malignant transformation of epithelial cells.

Dr. Boyd testified that he considers asbestos to be a Group 1 carcinogen. Boyd 2024 Dep. at 157:16-158:5. *See also* Boyd Report at 21. However, he did not consider the role that asbestos may have on ovarian cancer and looked at the issue “only in the sense that [he] skimmed the 2012 IARC on asbestos and cancer.” *Id.* at 178:14-22. Dr. Boyd admits he did no research on asbestos or other carcinogenic constituents, and also admits he is unaware of whether certain, other constituents are carcinogenic:

- Q. Since 2019, have you done any research to determine whether there are other constituents in Johnson’s Baby Powder? THE WITNESS: Any literature research? Q. Any type of research. A. No. Boyd 2024 Dep. at 179:15-22.
- Q. Is arsenic a carcinogen? A. To the best of my knowledge, yes. Boyd 2024 Dep. at 179:23-24.
- Q. Is nickel a carcinogen? A. I honestly don’t know. Boyd 2024 Dep. at 179:25-180:2.
- Q. Dr. Boyd, since 2019 have you formed any opinion as to whether or not chromium-6 is a carcinogen? THE WITNESS: No. Boyd 2024 Dep. at 181:25-182:5.

Dr. Boyd candidly admits that asbestos is a known carcinogen (Boyd Report at 21), yet he made no effort to investigate its role as a constituent of talcum powder. Dr. Boyd has never studied the effect of asbestos in the human body, and he has no opinion on whether asbestos, fibrous talc, or any other suspected carcinogens are present in Johnson & Johnson talcum powder. Boyd 2019 Dep. at 75:21-76:14. He was not asked to look into whether heavy metals might be present in Johnson & Johnson's talcum powder. *Id.* at 77:2-6. He did not ask Johnson & Johnson whether asbestos or other compounds were present in its talcum powder. *Id.* at 77:13-78:11. He was not aware of the studies Johnson & Johnson performed showing the presence of asbestos in their talcum powder. *Id.* at 79:4-10. In fact, Dr. Boyd is unaware of the ingredients list on a bottle of Johnson's Baby Powder but assumes that it is only talcum powder if that is what the label says. Boyd 2024 Dep. at 201:11-201:23. Mr. Boyd's refusal to consider the presence of known carcinogens and the role that those constituents may have on ovarian cells undermines any opinions on biologic plausibility.

B. Dr. Boyd Improperly Cherry-Picks Data And Information When Forming His Opinions

Dr. Boyd ignores asbestos because it "is one of the most potent carcinogens known," with all forms being carcinogenic. Dr. Judy Wolf's Report at 12; Dr. Daniel Clarke-Pearson's Report at 8. IARC concluded that asbestos and talc containing

asbestiform fibers cause ovarian cancer and “consumer products (e.g., cosmetics, pharmaceuticals) are the primary source of exposure to talc for the general population. Inhalation and dermal contact (i.e., through perineal application of talcum powders) are the primary routes of exposure.” IARC 2012 at 232.

By ignoring asbestos and focusing solely on talc, one component of talcum powder, Dr. Boyd is engaging in impermissible cherry-picking. The cherry-picking of data and facts “does not reflect scientific knowledge, is not derived by scientific method and is not ‘good science.’”¹¹ Although Dr. Boyd agrees that good science requires that you don’t cherry-pick, Boyd 2024 Dep. at 78:23-79:4. Dr. Boyd employs the flawed process in forming his opinions. For example, Dr. Boyd distinguishes between “reading” and “reviewing” publications. Boyd 2024 Dep. at

¹¹ *In re: Bextra and Celebrex Marketing Sales Practices and Product Liability Litigation*, 524 F. Supp. 2d 1166, 1176 (2007); *In re: Zoloft (Sertraline Hydrochloride) Prod. Liab. Litig.*, 858 F.3d 787, 796–800 (3d Cir. 2017) (“An expert’s opinion may be unreliable if he fails to account for contrary scientific literature and instead ‘selectively chooses his support from the scientific landscape.’”); *Eghnayem v. Bos. Sci. Corp.*, 57 F. Supp. 3d 658, 676 (S.D.W. Va. 2014) “[I]f the relevant scientific literature contains evidence tending to refute the expert’s theory and the expert does not acknowledge or account for that evidence, the expert’s opinion is unreliable.”) *Pooshs v. Phillip Morris USA, Inc.*, 287 F.R.D. 543, 546 (N.D. Cal. 2012) (“A methodology may not be reliable if an expert fails to address and exclude alternative explanations for the data on which he bases his findings or rejects studies reporting contrary empirical findings.”); *Abarca v. Franklin Cty. Water Dist.*, 761 F. Supp. 2d 1007, 1066 n.60 (E.D. Cal. 2011) (“A scientist might well pick data from many different sources to serve as circumstantial evidence for a particular hypothesis, but a reliable expert would not ignore contrary data, misstate the findings of others, make sweeping statements without support, and cite papers that do not provide the support asserted.” (internal citations omitted)).

155:5-20 (“I think, generally speaking, reviewing is more in-depth analysis of a body of work or a publication as opposed to reading and understanding the words on the paper, yes.”). Aware of the difference, Dr. Boyd chose to only “read” those publications that did not align with his opinions as compared to doing the necessary “review” that would have resulted in a more in-depth analysis:

- Q. Are you familiar with – well, you’re aware that O’Brien published in 2024 another epidemiologic study related to talcum powder. Are you aware of that? A. Yes. Q. Did you review it? A. I read the study, but I’m not an epidemiologist and so I don’t suggest that I’m familiar with the mathematical manipulation she used to come to her conclusion and the reanalysis of the sister case controls – of the sister cohort study... Boyd 2024 Dep. at 143:17-144:2
- Q. Now, as it relates to your opinion on the overall body of epidemiological studies, did you give consideration to the findings in the Health Canada report in April of 2021? A. I read it, yes. Q. Did you give any consideration to it? A. I did, actually. Q. Okay. Is it listed in your list of materials considered? A. No, but it’s not – it wasn’t useful in the formation of my opinion as a cause of ovarian cancer. Boyd 2024 Dep. at 147:18-148:4. Boyd 2024 Dep. at 152:6-13.
- Q. Dr. Boyd, I’ve handed you what’s been marked as Boyd Exhibit 14, which copy of the article that was published in Lancet Oncology regarding the IARC Working Group. Have you seen this document before? A. Yes. Q. Did you review it? A. I read it.

In July 2024, IARC classified talc not containing asbestos as “probably carcinogenic to humans.¹² IARC also found that there is strong mechanistic

¹² Stayner, et al., *Carcinogenicity of talc and acrylonitrile*, Lancet (2024)

evidence in human primary cells and environmental systems.¹³ However, Dr. Boyd chose not to consider the new IARC findings because he disagrees. Boyd 2024 Dep. at 156:9-20 (“... that’s why I have not considered the new IARC press release in the formation of my opinions in this case because I strongly disagree.” (emphasis added)). Dr. Boyd was dismissive of the new IARC findings because he disagrees, but he didn’t even consider the scientific literature that was evaluated by the IARC working group before dismissing it because it didn’t align with his opinions. Boyd 2024 Dep. at 161:2-12 (Q. There was a committee formed by IARC in order to investigate [carcinogenicity of talc], correct? A. There was a working group formed, yes. Q. And that working group evaluated scientific literature that was available on the topic? A. I should hope so. Q. Okay. Are you aware of all the scientific literature that was evaluated? A. No.).

“[A]ny theory that fails to explain information that otherwise would tend to cast doubt on that theory is inherently suspect,” and “courts have excluded expert testimony” ‘where the expert selectively chose his support from the scientific landscape’¹⁴ as Dr. Boyd have done here. It “is hardly scientific.”¹⁵ It is “inherently

¹³ *Id.*

¹⁴ *In re: Rezulin Prod. Liab. Litig.*, 369 F. Supp. 2d 398, 425 (S.D.N.Y. 2005).

¹⁵ *Lust By & Through Lust v. Merrell Dow Pharm., Inc.*, 89 F.3d 594, 596 (9th Cir. 1996).

unreliable.”¹⁶ As the U.S. Supreme Court has recognized, outside the courtroom, it is a fallacy that scientists insist on certainty or near certainty in making judgments. “[M]edical professionals and researchers do not limit the data they consider to the results of randomized clinical trials or to statistically significant evidence.”¹⁷ The Third Circuit is clear that “it would be unreasonable to conclude that the subject of scientific testimony must be ‘known’ to a ‘certainty.’”¹⁸

The methods used by Dr. Boyd to arrive at his opinions are flawed and scientifically unreliable. Dr. Boyd did not conduct a scientific review of the literature in forming his opinions and, thus, ignored scientific studies concerning the offending agent, which do not support his opinions. The Third Circuit has deemed expert opinions unreliable in situations like this, where the experts ignored facts when formulating their opinions.¹⁹ Thus, his opinions should be excluded.

VI. DR. BOYD’S TESTIMONY WILL NOT ASSIST THE TRIER OF FACT

Dr. Boyd’s testimony will not “assist the trier of fact.” To the contrary, it will tend to obfuscate and confuse. The very purpose of expert testimony is to help the

¹⁶ *In re: Bausch & Lomb, Inc. Contact Lens Solution Prods. Liab. Litig.*, 2009 WL 2760462, at *14 (D.S.C. Aug. 26, 2009).

¹⁷ *Matrixx Initiatives, Inc. v. Siracusano*, 563 U.S. 27, 40-42 (2011).

¹⁸ *Horan v. Dilbet, Inc.*, 2015 WL 5054856, *13 (D.N.J. Aug. 26, 2015) (citing *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 590 (1993)).

¹⁹ See *Elcock v. Kmart Corp.*, 233 F.3d 734, 756 (3d 2000); *Magistrini v. One Hour Martinizing Dry Cleaning*, 180 F. Supp. 2d 584, 602 (D.N.J. 2002), *aff’d*, 68 F. App’x 356 (3d Cir. 2003) (“in order for an expert’s opinions based on evidence to

jury understand the evidence or determine a fact in issue.²⁰ In its gate-keeper role, the court is tasked with balancing the admission of reliable, helpful expert testimony with the exclusion of that which is misleading or confusing.²¹

Dr. Boyd acknowledges that peer-review is a necessary part of the process of publishing medical journals. Boyd 2024 Dep. at 70:12-16 (“Q. And expert peer review is a necessary part of the process of publishing medical journals? THE WITNESS: It’s a requirement, yes, of course.”). In fact, according to Dr. Boyd, peer review is essential to the process of publishing medical literature:

Q. The peer review process, that’s a accepted part of a process of publishing medical journals? A. Medical or scientific. Yes, peer review is essential to the process of publishing anything in – about medical literature. Q. Part of the reason that it’s essential to the process is it helps to ensure the integrity of the work, right? THE WITNESS: Yes, I would agree with that. Boyd 2024 Dep. at 71:6-16.

He further acknowledges that peer reviewers are typically experts in the field of manuscript that’s been submitted to the journal for review. Boyd 2024 Dep. at 70:6-10. Despite this, Defendants and Dr. Boyd want to proffer opinions on the

be reliable and admissible, “all of the relevant evidence must be gathered, and the assessment or weighing of that evidence must not be arbitrary, but must itself be based on methods of science.”)

²⁰ Fed. Rule Evid. 702(a).

²¹ See *Daubert*, 509 U.S. at 595; *In re: Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 746 (3d Cir. 1994) (“[A]dmissibility of scientific testimony turns not only on reliability but also the possibility that admitting the evidence would overwhelm, confuse, or mislead the jury...in conducting this balancing inquiry, there is a presumption of helpfulness.”).

methodologies of specific published studies that have already withstood the scrutiny of peer review by experts in the field.²² Permitting Dr. Boyd to testify on methodologies that have already been reviewed, scrutinized, and published would imply that Dr. Boyd has more authority that could lead juries to give his opinions greater weight.²³

Boyd's opinions amount to nothing more than an incorrect personal, subjective belief and should not be permitted.

VII. DR. BOYD IS NOT QUALIFIED TO OPINE ON THE DESIGN AND METHODOLOGIES OF IN VITRO STUDIES

Dr. Boyd is a researcher whose work focuses on the genetics and molecular genetics of gynecologic and breast cancers. Boyd Report at 1. Dr. Boyd does not do lab-based research and does not do in vitro studies. He has spent a large part of his career in clinical settings, Boyd 2024 Dep. at 50:10-16, and it has been over twenty years since Dr. Boyd was in a research lab. Boyd 2024 Dep. at 49:23-50:3. *See also id.* at 112:2-13 (approximately 25 years since being in a lab working with reagents). Dr. Boyd has done no research on talc (Boyd 2024 Dep. at 51:13-16) or the role of chronic inflammation and development of ovarian cancer. Boyd 2024 Dep. at 51:20-

²² Ironically, although Dr. Boyd criticizes the work of Dr. Saed, including his 2020 poster that was presented at SGO, Dr. Boyd was a member of the SGO Board at the time the poster was approved for publication. *See* Boyd 2024 Dep. at 82:9-12.

²³ *See Nye v. Mistick*, 2015 WL 11511580, *5, n.3 (M.D. Pa. Feb. 24, 2015) (cautioning that experts that exude improper authority can lead juries to give their opinions more weight).

23. Dr. Boyd has never tried to test the effect of talc on ovarian cancer cells in vitro or in any context. Boyd 2024 Dep. at 176:17-23. As Dr. Boyd stated, he has “never experimented with talc in any context in [his] career. Boyd 2024 Dep. at 176:25-177:4.

An expert must be qualified in order to give opine on a topic. The expert must have specialized knowledge on the topic at issue.²⁴ Although Dr. Boyd may be qualified to testify on genetics and the molecular genetics of ovarian cancer, his qualifications fall short of being able to testify about the design, objectives, methodology, and other aspects of in vitro studies as he had done here regarding Drs. Saed, Mandarino, and Emi.

VIII. CONCLUSION

For this and the other foregoing reasons, the Court should grant the PSC’s motion to exclude the opinions of Dr. Jeff Boyd from this proceeding concerning (1) two posters authored by Dr. Ghassan Saed and the 2023 published study associated with Dr. Saed’s work; (2) two studies involving murine macrophages and talcum powder led respectively by Dr. Angelo Mandarino in 2020 and Dr. Tania

²⁴ *In re:: Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 741 (3d Cir. 1994). See also *Raritan Baykeeper Inc. v. NL Indus., Inc.*, No. 09-4117, 2017 WL 3568401, at *2 (D.N.J. Aug. 16, 2017).

Emi in 2021; and the opinions of plaintiffs' expert, Dr. Shawn Levy, which address, in part, talc, inflammation, and ovarian cancer.

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